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The effect of pecking order, trade-off and market timing theories on capital structure in commercial banking companies listed on IDX

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ABSTRACT

Capital structure has an impact on the short and long term. Funding provided by banks is inseparable from the availability of funds from third parties in the form of savings, demand deposits and deposits. The entry of third party funds must be balanced with the funds disbursed by the company. Therefore, management policy greatly determines the position and composition of funding. This study aims to analyze and determine several capital structure theories, namely Pecking Order Theory, Trade-Off Theory and Market Timing Theory. The variable of Pecking Order Theory is represented by funding deficit, long-term debt, and total debt. The variable of Trade-Off Theory is represented by tangible assets, growth, size, profitability, total debt and long-term debt. The variable of Market Timing Theory is represented by Equity Finance Weighted Average of market to book ratio and leverage ratio. This research is quantitative research. The samples used in this study are 100 data of commercial banking companies listed on IDX period 2011 - 2015. Data are obtained using purposive sampling method from banks registered at www.idx.go.id. Multiple Liner Regression is used in analyzing data using SPSS IBM 23. The results of the research show that Trade-Off and Market Timing Theories can be implemented by banking companies in terms of determining capital structure. This research implication is to enhance management choices, especially on how to set capital structure of the company.

ABSTRAK

Struktur modal berdampak pada jangka pendek dan jangka panjang, dimana pendanaan yang diberikan dari perbankan tidak terlepas dari tersedianya dana dari pihak ketiga tabungan, giro dan deposito, Masuknya dana pihak ketiga harus berimbang dengan dana yang disalurkan oleh perusahaan. Oleh karena itu dalam hal kebijakan manajemen menentukan posisi dan komposisi pendanaan, penelitian ini bertujuan untuk menganalisis dan menentukan dari beberapa teori struktur modal yaitu Pecking Order Theory, Trade-Off Theory dan Market Timing Theory, dimana untuk Pecking Order Theory variabelnya diwakili oleh defisit pendanaan, hutang jangka panjang dan total hutang, Trade-Off Theory variabelnya diwakili oleh tangible asset, growth, size, profitabilitas, total hutang dan hutang jangka panjang dan Market Timing Theory variabelnya diwakili oleh Equity Finance Wighted average of market to book ratio dan Leverage ratio. Penelitian ini merupakan penelitian kuantitatif, sampel dalam penelitian ini sebanyak 100 data Bank Go Public tahun 2011 sampai 2015, data diperoleh dengan cara purposive sampling dari bank yang terdaftar di www.idx.go.id. Regresi Liner Berganda digunakan dalam menganalisa data menggunakan SPSS IBM 23. Hasil dari penelitian menunjukkan bahwa Trade-Off dan Market Timing Theory yang diterapkan. Hasil penelitian dapat menambah beberapa implikasi untuk para manajemen bank menetapkan struktur modal.

1. INTRODUCTION

The increasingly high development of the banking world is inseparable from the involvement of government in determining regulations in the banking sector and the role of the general public. The public already knows how important and safe it is to keep a

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portion of funds to the bank and the public can use the funds in the bank in the form of credit. Studies on capital structure in banking industry are still relatively few because of the calculation of the Bank's capital structure. The bank as a place to store and distribute funds certainly has a special financial pattern and a different capital structure compared to other companies in general. The formation of capital structure gets a great attention from management, especially on how to achieve high profits but using low cost and how to make shareholders get high dividends. The policy in shaping capital structure is very important and is the main task of management, especially financial manager. He must have superiority in determining and applying how the capital structure is formed.

Capital structure has an impact on the short and long term. Funding provided by banks is inseparable from the availability of funds from third parties in the form of savings, demand deposits, and deposits, both time deposits and certificates of deposit. The entry of third party funds must be balanced with the funds disbursed by the company. Therefore, management policy greatly determines the position and composition of funding. Companies are also required to determine the form and composition of the sources of funds to be used. The same study was also conducted by Tsuji Chikashi (2011) that in Japan financial companies used capital structure with Pecking Order Theory. The study was conducted by surveying financial companies in Japan and seeing the financial structure of the companies and their application over the past few years. It is the pattern of capital structure that becomes the subject of discourse in each company. Several studies show that each type of company has a different pattern of capital structure. The companies with the same type can also have different pattern of capital structure. Research conducted by Sri Yuliati (2011) concerning the testing of Pecking Order Theory examines factors that influence the capital structure of manufacturing industry. The results show that several factors, such as profitability, liquidity, assets structure, company growth, company size and business risk have a significant effect on capital structure used by manufacturing companies. Research conducted by Soraya Vatavu (2012) compares two theories, Pecking Orders theory and Trade-Offs theory, in companies having similar businesses and listed on the stock exchange by taking samples from several countries. The results show that trade-offs theory has more significant effect in shaping the capital structure than pecking orders theory. Meanwhile, Market Timing theory, a more recent theory, has not been much used in the research on capital structure. This theory looks at the long term influence. A study conducted by Miswanto (2013) on Market Timing and its effect on Capital Structure in manufacturing companies shows that there is market timing of equity in the capital structure. The results indicate that there is an indication of stock issuance when price in the market is rated high and there is repurchase action or buy back the shares when the price is rated low.

Based on the description of several previous studies, it is found inconsistencies among some results of the studies. For example, a particular company is more suitable to use certain capital theories and different period may cause different results of the study even though the research is conducted in the same type of companies. Therefore, it is necessary to conduct re-testing by using additional samples and different time periods. The re-testing is expected to provide confidence that the company to be studied has applied a suitable capital structure theory. While the difference between current research and previous research lies in the larger number of ratios and the types of capital theory used are Pecking Orders, Trade Off, and Market Timing. This study is using three types of models at once. Differences in the results of research on the theoretical test on the capital structure may result in different applications and ways of view of the companies in determining the capital structure used.

This study is expected to add discourse in the field of accounting science, particularly financial accounting, where measurement of the company's capital structure can be explained through several existing theories. On the basis of the background described above, the authors are interested in analyzing and determining a number of capital structure theories, namely Pecking Order Theory, Trade-Off Theory and Market Timing Theory, where the variable of Pecking Order Theory is represented by funding deficit, long-term debt, and total debt, the variable of Trade-Off Theory is represented by tangible assets, growth, size, profitability, total debt and long-term debt, and the variable of Market Timing is represented by Equity Finance Weighted average of market to book ratio and leverage ratio. The research aims to find out which of the three theories that forms the capital structure of go public banking companies in Indonesia.

2. THEORETICAL FRAMEWORK AND HYPOTHESIS

Capital Structure

In general, capital structure is a combination of various types and sources that will be used by a compa-

ny in financing all the needs of the company. Capital structure is a permanent financing that is formed from long-term debt, preferred stock and shareholder capital (Weston and Copeland 2010). The two main components in the capital structure are long-term debt and own capital. The development of theories regarding capital structure includes Pecking Order Theory, Trade-Off Theory, and Market Timing Theory.

Pecking Order Theory

Pecking Order Theory, developed by Myer and Majluf (1984), explains why companies have a preference in choosing funding sources following a hierarchy of funding sources from internal funds, followed by non-risky bond issuance, risky bond issuance, and the issuance of new shares. The model used to test the pecking order theory of capital structure is adopted from the research conducted by Frank and Goyal (2003), as follows:

$$\Delta D_{it} = \alpha + \beta DEF_{it} + \epsilon_{it}. \quad (1)$$

The dependent variable ΔD is a change in the level of debt, and the independent variable DEF is the budget deficit. Budget deficit (DEF) is formulated as follows:

$$DEF = (DIV + I + \Delta W) - C. \quad (2)$$

DIV = dividend, I = investment, ΔW = changes in net working capital, and C = net cash received after interest and tax.

Trade-Off Theory

Trade-Off theory assumes that there is a tax benefit due to the use of debt, so companies will use debt to a certain degree to maximize the value of the company. Trade-off theory states that there are determinant factors.

This research uses Rajan and Zingales (1995) model to examine the trade-off theory in the capital structure as follows:

$$\Delta D_{it} = \alpha + \beta_t T_{it} + \beta_{mbv} MBV_{it} + \beta_{ls} LS_{it} + \beta_{prf} PRF_{it} + \varepsilon_{it}. \quad (3)$$

Where: ΔD = a change the level of debt, T = tangibility asset (comparison of total fixed assets with total assets), MBV = growth (market to book value ratio), LS = size (Ln total sales), and PRF = profitability (return on assets).

Market Timing Theory

Baker and Wurgler (2002) examined the relationship between market timing and capital structure and found that funding decisions using market timing equity had a persistent effect on capital structure. According to market timing theory, companies issue securities based on relative costs. If the cost of equity is relatively lower than other capital costs, companies will tend to choose to issue equity. In other words, this theory suggests that companies issue equity when the market value or book value is relatively higher than the book value and past market value, and then buy back the equity when the market value (stock price) is low.

To examine the effect of market timing persistently on the capital structure, this study uses the model adopted from Xu (2009) as follows:

$$L(i,t) = \alpha_0 + \alpha_1 [MB]_{eqwa,i,t-1} + \alpha_2 \left(\frac{M}{B}\right)_{i,t-1} + \alpha_3 \left(\frac{EBITDA}{A}\right)_{i,t-1} + \alpha_4 \left(\frac{PPE}{A}\right)_{i,t-1} + \epsilon_{it}. \quad (4)$$

The dependent variable: L_i, t shows the leverage ratio, both book leverage and market leverage in company i and in year t. The independent variables: (1) MBeqwa, i, t-1 = equity balance weighted average of market-to-book-ratio in company i and in year t-1, (2) (M/B) i, t-1 = the market equity divided by book equity in company i and in year t-1, (3) (EBITDA/A) i, t-1 = profit before interest, tax and depreciation divided by total assets in company i and in year t-1, (4) Log (S) i, t-1 = logarithm of net sales in company I and in year t-1, and (5) (PPE/A) i, t-1 = net property, plant, and equipment divided by total assets in company i and in year t-1.

The Effect of Funding Deficit on Changes in Total Debt to Assets Ratio

Pecking order theory states that companies prioritize internal funding in the form of retained earnings. If external funding is needed, the company will issue debt first and issue new shares. According to Frank and Goyal (2003), there is a funding deficit factor affecting companies to use external funding. The funding deficit shows that the cash position obtained from operational activities is insufficient to fund the company's activities in the future. Change in Total Debt to Assets Ratio is a comparison between current debt and long-term debt including the total amount of assets known. The measurement of changes in Total Debt to Assets Ratio is as follows:

Total Debt to Assets Ratio = Total Debt / Total Assets. (5)

According to Chikashi Tsuji (2011), financial companies in Japan use the Pecking Order Theory where one of the accepted hypotheses is that the Funding Deficit has an effect on changes in Total Debt to Asset Ratio.

Based on the theory above, the first hypothesis designed in this study is:

H1: Funding Deficit has an influence on the changes in Total Debt to Assets Ratio in commercial banking companies listed on IDX.

The Effect of Funding Deficit on Changes in the Long Term Debt to Assets Ratio

According to the pecking order theory, companies that have high assets are generally large companies, which do not need loans because the companies will be more likely to use internal funding. In addition, the theory also states that the companies that experience a funding deficit will fund the company's activities by increasing the company's debt level first and then issuing shares. By using data from long-term debt, the companies are expected to know the total used in terms of long-term debt alone. According to Chikashi Tsuji (2011), financial companies in Japan use the Pecking Order Theory where one of the accepted hypotheses is that the Funding Deficit has an effect on changes in Total Debt to Asset Ratio. The research conducted by Sri Yuliati (2011) found that Indonesian companies use Pecking Order Theory in determining capital structure. Changes in Long Term Debt to Assets Ratio are as follows:

Long Term Debt to Assets Ratio = Long Term Debt / Total Assets. (5)

Based on the theory above, the second hypothesis designed in this study is:

H2: Funding Deficit has an influence on the changes in the Long Term Debt to Asset Ratio in commercial banking companies listed on IDX.

The Effect of Tangibility Assets on Total Debt to Assets Ratio

Companies that have a high debt ratio can jeopardize the growth rate of the companies in the future so that the companies, according to both pecking order theory and trade off theory, will tend to maintain a low level of debt ratio. According to Sorana Vatayu (2012), some manufacturing companies in several countries use Trade-Off Theory in shaping the capital structure, where one of the accepted hypotheses is that Tangibility Asset has a significant influence on Total Debt to Asset Ratio. Research conducted by Agha et al. (2014) found that financial companies in Cairo use the trade-off theory in determining capital structure. The measurement of Total debt to Asset Ratio is as follows:

DAR = Total Debt / Total Asset. (6)

Based on the theory above, the third hypothesis designed in this study is:

H3: Tangible Assets have an influence on the Total Debt to Assets Ratio in commercial banking companies listed on IDX.

The Effect of Growth on Total Debt to Assets Ratio

According to the trade-off theory, a large company has a greater chance of entering the capital market so that it is easier to get a loan (Titman and Wessel 1988). A company that has a high debt ratio can jeopardize the growth rate of the company in the future (Medeiros and Daher 2004). So, the company, according to both pecking order theory and trade-off theory, will tend to maintain a low level of debt ratio. According to Sorana Vatayu (2012), some manufacturing companies in several countries use the Trade-Off Theory in shaping the capital structure, where one of the accepted hypotheses is that Growth has a significant influence on Total Debt To Asset Ratio. Research conducted by Agha et al. (2014) found that financial companies in Cairo use the trade-off theory in determining the capital structure. Growth is measured by the amount of credit growth.

Based on the above theory, the fourth hypothesis designed in this study is:

H4: Growth has an influence on the Total Debt to Assets Ratio in commercial banking companies listed on IDX.

The Effect of Size on Total Debt to Assets Ratio

According to the trade off theory, a large company has a greater chance of entering the capital market so that it is easier to get a loan. But according to the pecking order theory, a large company certainly has high assets to generate profits (Myers and Majluf 1984), so the companies that have high assets do not need loans in the form of debt. According to Sorana Vatayu (2012), several manufacturing companies in several countries use the Trade-Off Theory in shaping the capital structure, where one of the accepted hypotheses is that Size has a significant influence on the Total Debt To Asset Ratio. Research conducted by Agha et al. (2014) found that financial companies in Cairo use the trade-off theory in determining the capital structure. Size is measured by total sales or income.

Based on the theory above, the fifth hypothesis designed in this study is:

H5: Size has an influence on the Total Debt to Assets Ratio in commercial banking companies listed on IDX.

The Effect of Profitability on Total Debt to Assets Ratio

According to the trade off theory, debt will provide benefit to company in the form of tax shields (Modigliani and Miller 1963) so that the company will increase debt to a certain extent to increase the value of the company. According to Sorana Vatayu (2012), several manufacturing companies in several countries use the Trade-Off Theory in shaping the capital structure, where one of the accepted hypo-

theses is that Profitability has a significant influence on the Total Debt To Asset Ratio. Research conducted by Agha et al. (2014) found that financial companies in Cairo use the trade-off theory in determining capital structure. Profitability is measured by ROA.

ROA = Net Profit / Total Assets. (7)

Based on the above theory, the sixth hypothesis designed in this study is:

H6: Profitability has an influence on the Total Debt To Assets Ratio in commercial banking companies listed on IDX.

The Effect of Tangibility Assets on Long Term Debt to Assets Ratio

Companies that have a high debt ratio can jeopardize the growth rate of the company in the future (Medeiros and Daher 2004). So, companies, according to both pecking order theory and trade-off theory, will tend to maintain a low level of debt ratio. According to Sorana Vatayu (2012), several manufacturing companies in several countries use the Trade-Off Theory in shaping the capital structure, where one of the accepted hypotheses is that Tangible Asset has a significant influence on the Long Debt to Asset Ratio. Research conducted by Agha et al. (2014) found that financial companies in Cairo use the trade-off theory in determining capital structure

Based on the theory above, the seventh hypothesis designed in this study is:

H7: Tangible Assets have an influence on the Long Term Debt to Assets Ratio in commercial banking companies listed on IDX.

The Effect of Growth on Long Term Debt to Assets Ratio

According to the trade-off theory, a large company has a greater chance of entering the capital market making it easier to get a loan (Titman and Wessel 1988), but according to the pecking order theory, a large company certainly has high assets to generate profits (Myers and Majluf 1984), and the company that already has high assets does not need loans in the form of debt. According to Sorana Vatayu (2012), several manufacturing companies in several countries use the Trade-Off Theory in shaping the capital structure, where one of the accepted hypotheses is that Growth has a significant influence on the Long Debt To Assets Ratio. Growth is measured by Total Credit.

Based on the theory above, the eighth hypothesis designed in this study is:

H8: Growth has an influence on the Long Term Debt to Assets Ratio in commercial banking companies listed on IDX.

The Effect of Size on Long Term Debt to Assets Ratio

According to the trade-off theory, debt will provide benefit to the company in the form of tax shields (Modigliani and Miller 1963), so that the company will increase debt to a certain extent to increase the value of the company. According to Sorana Vatayu (2012), some manufacturing companies in several countries use the Trade-Off Theory in shaping the capital structure in the company, where one of the accepted hypotheses is that Size has a significant influence on the Long Debt To Assets Ratio. Size is measured by total sales or income.

Based on the above theory, the ninth hypothesis designed in this study is:

H9: Size has an influence on the Long Term Debt To Assets Ratio in commercial banking companies listed on IDX.

The Effect of Profitability on Long Term Debt To Assets Ratio

According to the trade-off theory, debt will provide benefit to the company in the form of tax shields (Modigliani and Miller 1963), so that the company will increase debt to a certain extent to increase the value of the company. According to Sorana Vatayu (2012), several manufacturing companies in several countries use the Trade-Off Theory in shaping the capital structure, where one of the accepted hypotheses is that Profitability has a significant influence on the Long Debt To Assets Ratio. Research conducted by Agha et al. (2014) found that financial companies in Cairo use the trade-off theory in determining capital structure.

Based on the theory above, the tenth hypothesis designed in this study is:

H10: Profitability has an influence on the Long Term Debt to Assets Ratio in commercial banking companies listed on IDX.

The Effect of Equity Finance Weighted Average of Market to Book Ratio on the Leverage Ratio

Studies conducted by Baker and Wurgler (2002) and Xu (2009) use MB Ratio of weighted average equity funding (M / Beqwa) as a measure of market timing which is used to test the effect of the persistent (long-term) market timing on capital structure. According to Miswanto (2012), manufacturing companies in Indonesia used Market Timing Theory to shape the capital structure. For this theory, there have not been many studies, especially in financial and banking

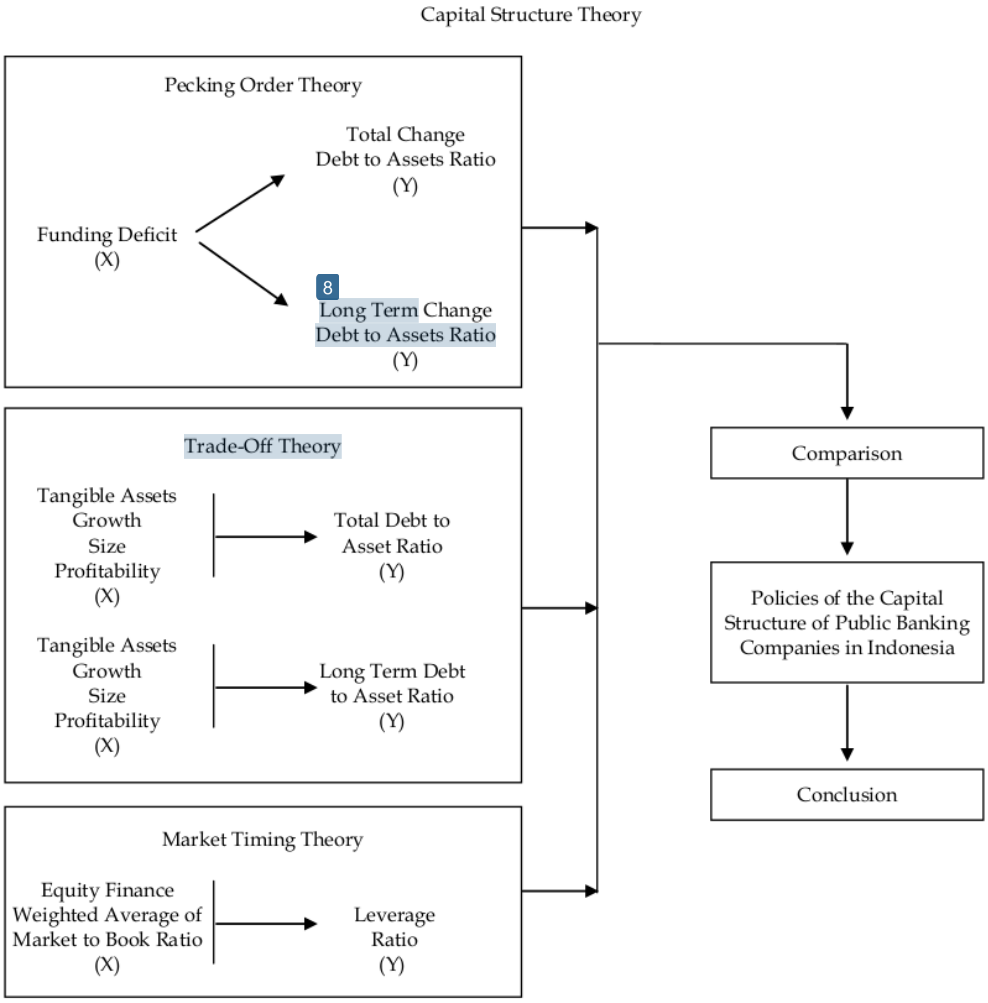

Figure 1
Research Framework

companies.

Equity Finance Weighted average of market to book ratio is measured by: Total Equity + ((profit before interest and tax + depreciation) / net sales)) + ((Net Property + Building + Equipment) / Total Assets))

Leverage = Total Debt / Own Capital

Based on the theory above, the eleventh hypothesis designed in this study is:

H11: Equity Finance Weighted average of market to book ratio has a significant influence on the leverage ratio in commercial banking companies listed on IDX.

Based on the general description above, Capital Structure is formed with three theories. The research framework is as shown in Figure 1.

3. RESEARCH METHOD

Sample Classification

This study uses commercial banks listed on the IDX but does not include Bank Pemerintah Daerah (BPD), Bank Pembiayaan Rakyat (BPR) and Bank Syariah. The population included in the selected sample is the commercial banks that published complete Financial Report for the period of 2011-2015 on the Indonesia Stock Exchange, did not merge, and did not experience acquisitions and / or restructuring during the study period. The initial total sample was 200 samples and after going through the sample selection process there were

Table 1
Classical Assumption Test Results

Classical Assumption Test	Result				
	H1	H2	H3 – H6	H7 – H10	H11
Normality Test					
Sig. Value	0.237	0.237	0.237	0.237	0.237
Heteroscidasticity Test					
Spearmans's rho Test	0.237	0.237	0.237	0.237	0.237
Multicollinearity Test	0.237	0.237	0.237	0.237	0.237

Table 2
Descriptive Analysis Results

Variables	Result		
	Minimum	Maximum	Mean
Funding deficit	-4.516	96.101	8.542
Change in Total Debt To Asset Ratio	-739	399	70
Change in Long Term Debt To Asset Ratio	-1.160	201	-5.50
Tangibility Asset	17	20.756	
Growth	1.634	586.675	114.602
Size	177	85	14.69
Profitability	-0.77	5.15	2.09
Total Debt	1.733	765.299	153.05
1.952	2	51.691	7.952
Equity Finance Weighted Average	366	145.933	825.23
Leverage Ratio	4.36	15.62	8.18

Source: Data Processed.

100 Bank financial report data.

Research Data

This research is included in quantitative research and uses secondary data. Quantitative research has several characteristics including describing problems through description of trends, explaining the relationship between variables, giving an important literature role in developing research questions, justifying research questions, determining research objectives and hypotheses, analyzing trend, comparing groups or relationships between variables, using statistical analysis, and interpreting the results by comparing the results of previous studies (Ghozali 2016: 9). Secondary data is information collected by other people not by researchers in conducting research. Several secondary data sources include books, journals, government publications on economic indicators, census data, statistical abstracts, media, and company annual reports (Ghozali 2016 : 94). The data in this study are in the form of annual financial statements of Go Public Commercial Banks in Indonesia that have been audited and published in April of the following year.

Research Variable

The independent variables (X) used in this study are Funding Deficit (X1), Tangibility Assets (X2), Growth (X3), Size (X4), ROA (X5) and Equity Finance Weighted Average of Market To Book Ratio (X6), while the dependent variables (Y) are: Changes in Total Debt To Asset Ratio (Y1), Changes in Long Term Debt To Asset Ratio (Y2), Total Debt To Asset Ratio (Y3), Long Term Debt To Asset Ratio (Y4) and Leverage Ratio (Y5)

Analysis Tools

The analytical tools used in this study include Classic Assumption Test, Descriptive Analysis and Multiple Regression Analysis. Descriptive analysis is used to provide an overview of the variables studied, including Funding Deficit variables, Tangibility Assets, Growth, Size, ROA, Equity Finance Weighted Average of Market To Book Ratio, Changes in Total Debt To Asset Ratio, Changes in Long Term Debt To Asset Ratio, Total Debt To Asset Ratio, Long Term Debt To Asset Ratio and Leverage Ratio.

4. DATA ANALYSIS AND DISCUSSION

Based on Table 1, it can be seen each indication of the data that have been tested using classical assumption test. The results of the classical assumption test show that in the overall, the samples used in this

Table 3
Regression Analysis Results Hypothesis 1 (Pecking Order Theory)

	Result		
	Coefficient (B)	**Beta**	**Sign.**
Constant	68.783	-	0.000
Funding Deficit	1.570	0.019	0.848

Source: Data Processed.

Table 4
Regression Analysis Results Hypothesis 2 (Pecking Order Theory)

	Result		
	Coefficient (B)	**Beta**	**Sign.**
Constant	2.812	-	0.842
Funding Deficit	9.762	-0.117	0.247

Source: Data Processed.

Table 5
Regression Analysis Results Hypothesis 3 to 6 (Trade-Off Theory)

	Result		
	Coefficient (B)	**Beta**	**Sign.**
Constant	5.689	-	0.117
Tangibility Asset	1.180	0.020	0.047
Growth	1.128	0.852	0.000
Size	1.137	0.110	0.043
Profitability	4.790	0.030	0.150

Source: Data Processed.

study are normally distributed, no symptoms of heteroscedasticity, and no multicollinearity occurring between the independent variables.

Descriptive Analysis Results

Based on Table 2, it is known that the mean value of the variable of funding deficit is 8.542. The minimum value is -4.516 owned by Bank Mandiri in 2012. This value shows that the value of cash reserved by Bank Mandiri for company operations in the future is less. The maximum value is 96,101 owned by BRI in 2015, this is because in 2015 BRI had an excess of funds that would be prepared for the future.

Hypothesis Testing Analysis

Hypothesis Testing 1

Based on Table 3, it is known that the variable of funding deficit has a coefficient value of 0.019. It can be concluded that the variable of Funding Deficit does not significantly influence the variable of Changes in Total Debt to Asset Ratio in Go Public Commercial Banks in Indonesia. Thus, the first Hypothesis (H1) which assumes that the Funding Deficit has a significant effect on the Amendment of the Total Debt to Asset Ratio in commercial banking companies listed on IDX is rejected.

The results of this study support the research conducted by Sorana Vatayu (2012), that manufacturing companies in several countries do not use Pecking Order Theory in forming a capital structure, where one of the hypotheses is rejected, that is, Funding Deficit has an effect on the Changes in Total Debt to Asset Ratio. The funding deficit has no significant effect on changes in the total debt to asset ratio, this explains that the value or composition of the funding deficit that contains cash and investment does not affect the capital structure, because the cash and investments existing in banks are the funds owned by the company which are used for company operations and are not used in financing total debt, where the total debt is part of the capital structure.

Hypothesis Testing 2

Based on Table 4, it is known that the funding deficit variable has a coefficient value of -1.117 with a significance value of 0.247. It can be concluded that the variable of Funding Deficit does not significantly influence the variable of Changes in the Long Term Debt To Asset Ratio in Public Commercial Banks in Indonesia. Thus, the second Hypothesis (H2) which assumes that the Funding Deficit has a significant effect on the Changes in the Long Term Debt to Asset Ratio in commercial banking companies listed on IDX is rejected.

Table 6
Regression Analysis Results Hypothesis 7 to 10 (Trade-Off Theory)

	Result		
	Coefficient (B)	**Beta**	**Sign.**
Constant	1.293	-	0.293
Tangibility Asset	0.347	0.101	0.023
Growth	0.113	1.486	0.000
Size	0.411	0.695	0.032
Profitability	506	0.055	0.044

Source: Data Processed.

Table 7
Regression Analysis Results Hypothesis 11 (Market Timing Theory)

	Result		
	Coefficient (B)	**Beta**	**Sign.**
Constant	8.519	-	0.000
Equity Finance To Book Ratio	1.246	0.191	0.045

Source: Data Processed.

The results of this study support the research conducted by Sorana Vatayu (2012), that financial companies do not use Pecking Order Theory in shaping capital structure, where one of the hypotheses is rejected, that is, Funding Deficit has an effect on Changes in Long Term Debt to Asset Ratio. The funding deficit has no significant effect on changes in Long Term Debt to Asset Ratio. This explains that the value or composition of the funding deficit that contains cash and investment does not affect the capital structure, because the cash and investments existing in banking are the funds owned by the company which are used for the company's operations and are not used in financing long-term total debt, where the long-term debt is part of the capital structure

Hypothesis Testing 3

Based on Table 5, it is known that the variable of Tangibility Asset has a coefficient value of 0.020 with a significance value of 0.047, so it can be concluded that the variable of Tangibility Asset has a significant effect on the variable of Total Debt in Public Commercial Banks in Indonesia. Thus, the third hypothesis (H3) which assumes that tangibility asset has a significant influence on total debt in commercial banking companies listed on IDX is accepted.

The results of this study support the research conducted by Sorana Vatayu (2012) that some manufacturing companies in several countries use the Trade-Off Theory in forming capital structure, where one of the accepted hypotheses is that Tangibility Asset has a significant effect on Total Debt. Research conducted by Agha et al. (2014) found that financial companies in Cairo used the trade-off theory in determining capital structure.

Hypothesis Testing 4

Based on Table 5, it is known that the variable of Growth has a coefficient value of 0.852 and 0.000 <0.05, so it can be concluded that the variable for Growth has a significant effect on the variable of Total Debt in Public Commercial Banks in Indonesia. Thus, the fourth Hypothesis (H4) which assumes that Growth has a significant influence on the Total Debt in commercial banking companies listed on IDX is accepted.

The results of this study support the research conducted by Sorana Vatayu (2012) that some manufacturing companies in several countries use the Trade-Off Theory in shaping the capital structure, where one of the accepted hypotheses is that Growth has a significant influence on Total Debt. Research conducted by Agha et al. (2014) found that financial companies in Cairo use the trade-off theory in determining capital structure.

Hypothesis Testing 5

Based on Table 5, it is known that the variable of Size has a coefficient value of 0.110 and 0.043 < 0.05, so it can be concluded that the variable of Size has a significant effect on the variable of Total Debt on public commercial banks in Indonesia. Thus, the fifth Hypothesis (H5) which assumes that Size significantly influences the Total Debt in commercial banking companies listed on IDX is accepted.

The results of this study support the research conducted by Sorana Vatayu (2012) that some manufacturing companies in several countries use the Trade-Off Theory in shaping the capital structure, where one of the accepted hypotheses is that Size has a significant influence on Total Debt. Research conducted by Agha et al. (2014) found that financial

companies in Cairo use the trade-off theory in determining capital structure.

Hypothesis Testing 6

Based on Table 5, it is known that the variable of Profitability has a coefficient value of 0.015 < 0.05, so it can be concluded that the variable of Profitability has a significant effect on the variable Total Debt in commercial banking listed on IDX. Thus, the sixth Hypothesis (H6) which assumes that Profitability has a significant effect on Total Debt in commercial banking companies listed on IDX is accepted.

The results of this study support the research conducted by Sorana Vatayu (2012) that some manufacturing companies in several countries use the Trade-Off Theory in shaping the capital structure, where one of the accepted hypotheses is that Profitability has a significant influence on Total Debt. Research conducted by Agha et al. (2014) found that financial companies in Cairo use the trade-off theory in determining capital structure.

Hypothesis Testing 7

Based on Table 6, it is known that the variable of Tangibility Asset has a coefficient value of 0.101 with a significance level of 0.023 < 0.05, so it can be concluded that the variable of Tangibility Asset has a significant effect on the variable of Long-Term Debt in public commercial banks in Indonesia. Thus, the Seventh Hypothesis (H7) which assumes that Tangibility Asset has a significant effect on Long-Term Debt in commercial banking listed on IDX is accepted.

The results of this study support the research conducted by Sorana Vatayu (2012) that some manufacturing companies in several countries use the Trade-Off Theory in forming capital structure, where one of the accepted hypotheses is that Tangibility Asset has a significant influence on Long-Term Debt. Research conducted by Agha et al. (2014) found that financial companies in Cairo use the trade-off theory in determining the capital structure.

Hypothesis Testing 8

Based on Table 6, it is known that the variable of Growth has a coefficient value of 1.4 with a significance value of 0.000. so it can be concluded that the variable of Growth has a significant influence on the variable of Long-Term Debt in public commercial banks in Indonesia. Thus, the Eighth Hypothesis (H8) which assumes that Growth has a significant effect on Long-Term Debt in commercial banking companies listed on IDX is accepted.

The results of this study support the research conducted by Sorana Vatayu (2012) that some manufacturing companies in several countries use the Trade-Off Theory in shaping capital structure, where one of the accepted hypotheses is that Growth has a significant influence on Long-Term Debt. Research conducted by Agha et al. (2014) found that financial companies in Cairo use the trade-off theory in determining the capital structure.

Hypothesis Test 9

Based on Table 6, it is known that the variable of Size has a coefficient of 0.695 with a significance value of 0.032 and 0.032 < 0.05, so it can bbe concluded that the variable of Size significantly influences the variable of Long-Term Debt in public commercial banks in Indonesia. Thus, the Ninth Hypothesis (H9) which assumes that Size has a significant effect on Long-Term Debt in commercial banking companies listed on IDX is accepted.

The results of this study support the research conducted by Sorana Vatayu (2012) that some manufacturing companies in several countries use the Trade-Off Theory in forming capital structure, where one of the accepted hypotheses is that Size has a significant influence on Long-Term Debt. Research conducted by Agha et al. (2014) found that financial companies in Cairo use the trade-off theory in determining the capital structure.

Hypothesis Testing 10

Based on Table 6, it is known that the variable of Profitability has a coefficient value of 0.55 with a significance value of 0.044 and 0.044 < 0.05, so it can be concluded that the variable of Size significantly influences the variable of Long-Term Debt in public commercial banks in Indonesia. Thus, the Tenth Hypothesis (H10) which assumes that Profitability has a significant effect on Long-Term Debt in commercial banking companies listed on IDX is accepted.

The results of this study support the research conducted by Sorana Vatayu (2012) that some manufacturing companies in several countries use the Trade-Off Theory in shaping capital structure, where one of the accepted hypotheses is that Profitability has a significant influence on Long-Term Debt. Research conducted by Agha et al. (2014) found that financial companies in Cairo use the trade-off theory in determining the capital structure.

Hypothesis Testing 11

Based on Table 7, it is known that the variable of Equity Finance Average of Market to Book Ratio has a coefficient value of 0.191 with a significance value of 0.045 and 0.045 < 0.05, so it can be concluded that

variable of Equity Finance Wighted Average of Market to Book Ratio has a significant effect on the variable of Leverage in public commercial banks in Indonesia. Thus, the Eleventh Hypothesis (H11) which umes that Equity Finance Weighted Average of Market to Book Ratio has a significant effect on Leverage in commercial banking companies listed on X is accepted.

The results of this study support the research conducted Miswanto (2012) that manufacturing companies in Indonesia use Market Timing Theory in shaping capital structure. There have been only few studies on this theory, especially for financial and banking companies.

5. CONCLUSION, IMPLICATION, SUGGESTION, AND LIMITATIONS

The purpose of this study is to analyze whether the Pecking Order, Trade-Off, and Market Timing theories can be applied in determining the capital structure in commercial banking companies listed on the IDX in the period 2011-2015. The sample used is 100 financial statements of commercial banks listed on www.idx.co.id. The data analysis technique used is Liner Regression. Based on the results of the data analysis that has been carried out, it can be concluded that the: (1) Funding Deficit has a significant positive effect on changes in Total Debt To Asset Ratio, (2) Funding Deficit has a gative and insignificant effect on changes in the Long Term Debt To Asset Ratio, (3) Tangibility Assets have a significant positive effect on Total Debt, (4) Growth has a significant positive effect on Total Debt, (5) Size has a sigcant positive effect on Total Debt, (6) Profitability has a significant positive effect on Total Debt, (7) Tangibility Assets have a significant positive effect on Long-Term Debt, (8) Growth has a significant positive effect on Long-Term Debt, (9) Size has a significant p tive effect on Long-Term Debt, (10) Profitability has a significant positive effect on Long-Term D t, and (11) Equity Finance Weighted Average Of Market To Book Ratio has a significant positive effect on Leverage.

The implication of this research for companies, especially banking companies, is that banking companies will be able to determine the best capital structure that will be used and affect all elements of the banking system, such as in setting the position of financial statements that contain several important posts. A good capital structure will attract some investors. In addition this research is expected to add references to further researchers related to the formation of capital structure in banking companies.

Some limitations of this study are: (1) The number of research samples is only 100 financial data of commercial banks listed on the IDX, (2) The study period is only for five years, (3) The number of independent variables is also limited, consisting of measurements using three theories.

It is suggested that further researchers add to the research period, expand the criteria in selecting research samples, and compare between two or more types of banks that have different characteristics. In addition, it is also suggested that the management of the public commercial banks select one of the theories used in determining the capital structure and adjusted to the characteristics of the banking companies.

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